

REMARKS

Claims 1, 4-9, and 11-12 are pending in the application. Claims 2, 3, and 10 have been canceled.

Specification and Claims

Minor changes have been made to the specification and claims to place them in better form for U.S. practice.

Substitute Specification

The above-noted specification changes are set forth in the attached Substitute Specification. The Substitute Specification does not contain new matter.

A Comparison Specification showing the matter being added to and deleted from the original specification is also submitted herewith.

The Examiner is respectfully requested to approve the Substitute Specification.

An Embodiment of the Present Invention

A plasma processing apparatus of the present invention has a supporting structure for a wall surface protecting member, which is formed in a cylindrical form and provided in an interior of a chamber, for preventing adhesion of a plasma processing-associated product onto an inner wall surface of the chamber.

More specifically, a chamber step portion is provided to the inner wall surface protecting member from below so as to cover the inner surface of the chamber, which is located above (or at a position higher than) a susceptor. Furthermore, a plurality of projections is provided on an

outer wall surface and at a lower end portion of the wall surface protecting member for point-contacting the inner wall surface of the chamber and the chamber step portion, respectively. Thereby, the wall surface protecting member is supported by the point contact on the chamber step portion (refer to Fig. 2).

Since the wall surface protecting member is supported by such point contact on the chamber step portion located below the susceptor, a contacting area between the wall surface protecting member and the chamber becomes small, and heat conduction from the wall surface protecting member heated by plasma to the chamber is suppressed. As a result, a temperature of the wall surface protecting member is maintained at a high temperature, and thus a plasma processing-associated product adheres only to the wall surface protecting member at high uniformity and in a highly adherent manner, thereby minimizing the peeling of the plasma processing-associated product.

In addition, frictions between the wall surface protecting member and the chamber caused by a thermal expansion of the wall surface protecting member itself are suppressed to a minimum, thereby also suppressing particles caused by such frictions to a minimum. In the case where the wall surface protecting member has a surface oxidized, if the frictions are too large, an oxidized layer is scraped by the frictions, and as a result, a product life of the wall surface protecting member is shortened. In the present invention, however, a scrape of the oxidized layer is suppressed and thus the wall surface protecting member has a longer product life because the frictions are suppressed to the minimum.

Claim Rejections - 35 U.S.C. § 102

Claims 1-2, 5-6, and 10-12 have been rejected under 35 U.S.C. § 102(b) as being anticipated by Katayama et al. (USP 5,529,632).

Further, claims 1-2, 4-6, and 11-12 have been rejected under 35 U.S.C. § 102(b) as being anticipated by Kanai et al. (USP 5,874,012).

These rejections are respectfully traversed.

Katayama and Kanai disclose a wall surface protecting member. Katayama and Kanai, however, fail to disclose or suggest that the wall surface protecting member is supported by point contact on a chamber step portion as required in the claimed invention of the present application.

Claims 2 and 10 have been canceled.

Claims 5-6, 11, and 12, variously dependent on claim 1, are allowable at least for their dependency on claim 1.

The Examiner is respectfully requested to reconsider and withdraw this rejection.

(b) Claims 1-2, 4-6, and 11-12 have been rejected under 35 U.S.C. § 102(b) as being anticipated by Kanai et al. (USP 5,874,012). This rejection is respectfully traversed.

Claim 2 has been canceled.

Claims 4-6, 11, and 12, variously dependent on claim 1, are allowable at least for their dependency on claim 1.

In view of this, the Examiner is respectfully requested to reconsider and withdraw this rejection.

Claim Rejections - 35 U.S.C. § 103

(a) Claim 3 has been rejected under 35 U.S.C. § 103(a) as being unpatentable over Katayama in view of Kyoko et al. (JP 08-185997). This rejection is respectfully traversed.

Claim 3 has been canceled, thus rendering this rejection moot.

The Examiner is respectfully requested to reconsider and withdraw this rejection.

(b) Claims 7-8 have been rejected under 35 U.S.C. § 103(a) as being unpatentable over Katayama in view of Shibasaki (JP 2002-222767). This rejection is respectfully traversed.

Claims 7 and 8, variously dependent on claim 1, are allowable at least for their dependency on claim 1.

The Examiner is respectfully requested to reconsider and withdraw this rejection.

(c) Claim 9 has been rejected under 35 U.S.C. § 103(a) as being unpatentable over Katayama in view of Kazuo et al. (JP 07-283143A). This rejection is respectfully traversed.

Claim 9, dependent on claim 1, is allowable at least for its dependency on claim 1.

The Examiner is respectfully requested to reconsider and withdraw this rejection.

Conclusion

Accordingly, in view of the above amendments and remarks, reconsideration of the rejections and objections, and allowance of the pending claims are earnestly solicited.

Should there be any outstanding matters that need to be resolved in the present application, the Examiner is respectfully requested to contact Maki Hatsumi (#40,417) at the

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telephone number of the undersigned below, to conduct an interview in an effort to expedite prosecution in connection with the present application.

If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies, to charge payment or to credit any overpayment to Deposit Account No. 02-2448 for any additional fees required under 37 C.F.R. § 1.16 or under 37 C.F.R. § 1.17; particularly, extension of time fees.

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Respectfully submitted,

for   
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Attachments: Substitute Specification - 18 pages  
Comparison Specification - 23 pages